



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX**

75 Hawthorne Street  
San Francisco, CA 94105

**DEC 16 2016**

Mr. Gordon Johnson  
Environmental Affairs Manager  
Shell Oil Products US –Martinez Refinery  
3485 Pacheco Blvd.  
Martinez, CA 94553

**RE: Notice of Violation**  
**Shell Oil Products US, Martinez Refinery**  
**EPA Identification Number: CAD 009164021**

Dear Mr. Johnson:

U.S. Environmental Protection Agency (EPA) Region 9 Enforcement Division inspectors conducted a Compliance Evaluation Inspection (CEI) at the Shell Martinez Refinery (SMR) located in Martinez, California on March 23-27 and March 30, 2015. The purpose of the inspection was to evaluate SMR's compliance with the Resource Conservation and Recovery Act's (RCRA) hazardous waste management requirements, 42 U.S.C. §§ 6921-6939, and the implementing regulations; and the California Code of Regulations (CCR), Title 22, Division 4.5 and the California Health and Safety Code (HSC), Division 20; and specific Hazardous Waste Facility Permit (Permit) provisions. Under Section 3006 of RCRA, 42 U.S.C. § 6926, violations of the State of California's authorized RCRA hazardous waste management program are federally enforceable.

A copy of the RCRA CEI report is enclosed for your information and response. The CEI report describes conditions at the facility at the time of inspection, and identifies areas of noncompliance with RCRA regulations and the State of California's authorized program under RCRA Subtitle C. In addition, the report identifies other areas of concern at SMR. Please note that omissions in the CEI report shall not be construed as a determination of compliance with any other applicable regulation.

Pursuant to Section 3008 of RCRA, 42 U.S.C. § 6928, and EPA's Civil Monetary Penalty Inflation Adjustment Rule, 81 Fed. Reg. 43091 (July 1, 2016), violations of RCRA hazardous waste management requirements may be punishable by civil penalties of up to \$40,799 per day for each day such violation continues. EPA requests that you submit documentation that you have corrected each of the potential violations identified in the enclosed RCRA CEI report within **thirty (30) calendar days** of your receipt of this letter. Documentation of corrective actions taken by SMR to address the potential violations identified in the CEI report may consist of, among other things, photographs, manifests, and revised records.

**Confidential Business Information:** EPA regulations governing the confidentiality of business information are set forth in 40 CFR Part 2, Subpart B. EPA routinely provides copies of investigation reports to state agencies, and upon request, to the public. Such releases are handled according to the Freedom of Information Act regulations (40 CFR Part 2). If SMR believes this letter contains information entitled to treatment as confidential business information, please assert a confidentiality claim in accordance with 40 CFR § 2.203(b) within fourteen (14) calendar days from the date of receipt of this letter. Business confidentiality includes the concept of trade secrecy and other related concepts. Your claim must specifically identify the information covered by the claim and should be sent to EPA by certified mail. EPA will construe the failure to furnish a confidentiality claim within fourteen (14) calendar days from the date of SMR's receipt of this letter as a waiver of that claim and information may be made available to the public by the EPA without further notice. See 40 CFR § 2.203(a)(2).

Additionally, if SMR believes that any information in SMR's response to this letter is entitled to treatment as confidential business information, please identify any such information and assert a confidentiality claim in accordance with 40 CFR § 2.203(b) in SMR's response. EPA will construe the failure to make a confidentiality claim when the response is submitted to EPA as a waiver of that claim and information may be made available to the public by the EPA without further notice.

If EPA determines that any information over which SMR asserts a claim meets the criteria set forth in 40 CFR § 2.208, the information will be disclosed only to the extent, and by means of the procedures specified in 40 CFR Part 2, Subpart B.

If you have any questions regarding this letter and the enclosed inspection report, please contact Sharon Lin of my staff at (415) 972-3446.

Sincerely,



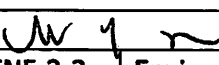


Douglas K. McDaniel  
Chief, Waste and Chemical Section  
Enforcement Division

Enclosure

cc: Maria Soria, California Department of Toxic Substances Control (w/o enclosure)  
Diana Peebler, California Department of Toxic Substances Control (w/o enclosure)

**Region 9 Enforcement Division  
INVESTIGATION REPORT**

<b>Inspection Date(s):</b>	03/23/2015-3/27/2015, 3/30/2015		<b>Inspection Announced:</b> No
<b>Time:</b>	Entry: 9:00 am		Exit: 5:30 pm
<b>Media:</b>	Air/Water/Soil		
<b>Regulatory Program(s)</b>	RCRA		
<b>Company Name:</b>	Shell Oil Products US		
<b>Facility or Site Name:</b>	Shell Martinez Refinery		
<b>Facility/Site Physical Location:</b>	3485 Pacheco Blvd.		
<b>(city, state, zip code)</b>	Martinez, CA 94553		
<b>Geographic Coordinates:</b>	(38.05010, -122.11653)		
<b>Mailing address:</b>	3485 Pacheco Blvd.		
<b>(city, state, zip code)</b>	Martinez, CA 94553		
<b>County:</b>	Contra Costa		
<b>Facility/Site Contact:</b>	Gordon Johnson	Environmental Affairs Manager	
	gordon.johnson@shell.com		
	(925) 313-5131		
<b>Facility/Site Identifier:</b>	CAD009164021		
<b>Media Number:</b>			
<b>NAICS:</b>	324110		
<b>SIC:</b>	2911		
<b>Facility/Site Personnel Participating in Inspection:</b>			
Michael Monson	SMR	Environmental Engineer	michael.monson@shell.com
Michael Armour	SMR	Senior Engineer	michael.armour@shell.com
Duke Dunham	SMR	Haz Waste Coordinator	charles.dunham@shell.com
<b>Inspector(s):</b>			
Sharon Lin	ENF-2-2	Environmental Engineer	lin.sharon@epa.gov
John Schofield	ENF-2-2	Environmental Scientist	schofield.john@epa.gov
Rick Sakow	ENF-2-2	Environmental Protection Specialist	sakow.rick@epa.gov
Christopher Rollins	ENF-2-2	Environmental Protection Specialist	rollins.christopher@epa.gov

Additional Persons Participating in Inspection: (Non-Inspector Federal/State/Tribal/Local Personnel)			
Teng "Andy" Yang	California Department of Toxic Substances Control (DTSC)	Environmental Scientist	teng.yang@dtsc.ca.gov
Larry Ramirez	DTSC	Environmental Scientist	larry.ramirez@dtsc.ca.gov
Melissa Hagen (present for part of the inspection)	Contra Costa County Health Services Hazardous Materials Programs	Hazardous Materials Specialist II	Melissa.hagen@hsd.cccounty.us
<b>Inspection Report Author:</b>			
Sharon Lin	 ENF-2-2 Environmental Engineer		12/16/16 lin.sharon@epa.gov
<b>Peer Review:</b>			
John Schofield	 ENF-2-2 Environmental Scientist		for 12/16/16 schofield.john@epa.gov
<b>Supervisor Review:</b>			
Doug McDaniel	 ENF-2-2 Section Chief		12/16/16 mcdaniel.doug@epa.gov

## **INTRODUCTION**

EPA Region 9 Enforcement Division inspectors conducted a Resource Conservation and Recovery Act (RCRA) inspection at the Shell Martinez Refinery (SMR) located in Martinez, California on March 23-27 and March 30, 2015. SMR production operations and associated waste streams are subject to RCRA. SMR operations are subject to environmental permits and regulations administered by the EPA and the California Department of Toxic Substances Control. The purpose of the inspection was to determine SMR's compliance with applicable federal environmental statutes and regulations, and in particular, RCRA, as amended, the regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 261-265, 268, 273, and 279, and the California Code of Regulations (CCR), Title 22, Division 4.5 and the California Health and Safety Code (HSC), Division 20. EPA inspectors were accompanied by representatives from the California Department of Toxic Substances Control (DTSC) and Contra Costa County.

## **FACILITY BACKGROUND**

SMR is located at 3485 Pacheco Blvd in Martinez, California. The refinery was built in 1915. Located 30 miles Northeast of San Francisco on about 1000 acres of land, the facility has a permitted throughput of 178,800 barrels crude oil per day (Major Facility Review Permit issued by the Bay Area Air Quality Management District on September 30, 2011). The facility discharges wastewater to the SMR wastewater treatment plant. The primary products produced at the SMR are liquefied petroleum gas (LPG), automotive gasoline, jet fuel, diesel, industrial fuel oils, asphalt and petroleum coke. The Shell Catalyst Plant is on the refinery footprint and has a separate RCRA facility ID.

## **ON SITE INSPECTION SUMMARY**

The inspection team included: Sharon Lin, John Schofield, Rick Sakow, and Christopher Rollins from EPA Region 9 RCRA Enforcement program, Andy Teng and Larry Ramirez from the California Department of Toxic Substances Control (DTSC), and Melissa Hagen with Contra Costa County Health Services Hazardous Materials Programs. Credentials were presented to Natalie Braden, Environmental Affairs Manager. During the on-site inspection, SMR representatives provided transportation to locations of interest to the inspection team, detailed process descriptions, process area walkthroughs, and documentation/records pertaining to the inspection.

SMR is a RCRA treatment, storage, and disposal facility (TSDF) (EPA ID: CAD009164021, permit number 07-BRK-12, permit expiration date is May 20, 2018). The status of permitted units, at the time of EPA's inspection, was as follows: RM-17 incinerator was closed on December 27, 1996 and is no longer a permitted unit. Vessel 482 hazardous waste storage tank was closed on April 3, 1997 and is no longer a permitted unit. Tank 12038 was

closed in January 2015 and is receiving non-hazardous wastes. An "in-ground" surface impoundment biotreater (ETP-1) (also known as E-001 or Pond 7) has been receiving non-hazardous waste since 1998. ETP-1 biotreater serves the activated sludge biological treatment function in the facility's wastewater treatment process. The ETP-1 unit is in delayed closure which was approved by DTSC in 2003. The CO Boiler (COB) #2 was closed in 2014. COB #1 and COB #3 are expected to close in 2016.

EPA's objectives during the inspection were to determine compliance with hazardous wastes characterization, handling, and management procedures, including any potential disposal of wastes in surface impoundments. Waste handling and treatment processes were evaluated to determine whether they are subject to RCRA requirements.

EPA requested additional information following the March 2015 inspection on June 23, 2015, under RCRA Section 3007(a) authority. The facility submitted a response to EPA's information request on August 26, 2015.

EPA returned to the facility on August 3, 2015 for field sampling to address data gaps identified during the March inspection. DTSC conducted an inspection of the tiered permitted units at the facility from August 3-5, 2015. The findings of the DTSC inspection will be transmitted to the facility by DTSC separately.

**Region 9 Enforcement Division  
INVESTIGATION REPORT**

**SUMMARY OF FINDINGS**

**Table 1** summarizes findings for the RCRA investigation, identified by the EPA Region 9 inspection team during the investigation. These findings are linked to specific supporting documents that can be found in individual appendices to this table. These findings can be categorized as either areas of noncompliance or concern. Areas of concern are inspection observations of problems or activities that could impact the environment, result in future or current noncompliance, or areas associated with pollution prevention.

**Table 1. SUMMARY OF FINDINGS  
Shell Refinery Martinez  
Martinez, California**

#	Regulatory Citation	Findings/Supporting Notes	Evidence
	<b>AREAS OF NONCOMPLIANCE</b>		
1.	<b>22 California Code of Regulations (CCR) § 66262.11. Hazardous Waste Determination [40 CFR § 262.11] – A person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste.</b>	<p><b>Finding 1:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to make a waste determination for spent paint wastes at the paint shop.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- On 3/26/2015, EPA/DTSC inspectors visited the paint shop and the sand blast pad area which was managed by SMR's contractor, Brand. According to Mr. Joaquin Rodriguez, Brand's Superintendent for Painting, the spent paint waste was not hazardous waste and was being handled as non-hazardous. EPA determined that D001 and D035 RCRA wastes were being generated at the paint shop, including Carboline paint thinner #2 (reported annual usage of approximately 200 gallons), based on the SDS information provided by SMR in SMR's 8/26/2015 written response to EPA's information request (Appendix B).</li> </ul>	<p><b>Finding 1:</b></p> <p><b>Appendix A – Photographs</b> CIMG2515, CIMG2516, CIMG2518</p> <p><b>Appendix B – Shell Martinez Refinery Response to EPA's Information Request</b></p>

**Table 1. SUMMARY OF FINDINGS**  
**Shell Refinery Martinez**  
**Martinez, California**

#	Regulatory Citation	Findings/Supporting Notes	Evidence
		<p><b>Finding 2:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to make a hazardous waste determination for the wastewater streams that are discharged into surface impoundments.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- According to SMR's Stormwater Pollution Prevention Plan (Appendix G), SMR operates the following stormwater surface impoundments (all unlined ponds): Upper and Lower Lake Slobodnik (Pond E-002), Vine Hill Pond (Pond E-004), Flare Area Pond (Pond E-005), and Volatiles Storage Area Pond (Pond E-007). Stormwater runoff from the process areas, tank farms, and storage areas are collected in these ponds. In addition, combined process wastewater and stormwater are fed into the Effluent Treatment Plant (referred to as Pond E-001 or ETP-1), an unlined surface impoundment.</li> <li>- The stormwater runoff from the process areas, especially during the "first flush," which is the initial surface runoff during the rain storm, could contain benzene at the hazardous waste level. SMR's total annual benzene (TAB) reports that are part of the Annual Benzene Waste Operations NESHAP report (Appendix E), showed significant amounts of benzene are being released from the process units.</li> <li>- SMR does not test the stormwater for benzene when it is discharged into the unlined stormwater holding ponds (E-002, E-004, E-005, and E-007).</li> <li>- The ETP-1 (E-001) feed is tested only as a composite sample from four grab samples for benzene semi-annually, and not tested in conjunction with a storm event.</li> </ul>	<p><b>Finding 2:</b></p> <p><b>Appendix G – Stormwater Pollution Prevention Plan</b></p> <p><b>Appendix E – Annual Benzene Waste Operations NESHAP report data excerpts (2012, 2014)</b></p>



2.	<p><b>22 CCR § 66270.1(c) [40 CFR § 270.1(c)]</b> – <i>A permit is required for the "transfer," "treatment," "storage," and "disposal" of any waste which is hazardous waste...</i></p>	<p><b>Finding 1:</b></p> <ul style="list-style-type: none"> <li>- <b>SMR is storing and treating hazardous wastes in the Recovered Oil Process (ROP) Unit and laboratory vessel (V-18259) without a RCRA permit.</b></li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- The lab waste tank V-18259 was holding RCRA regulated wastes (D011, D022, F003 and F005) to which the oil-bearing materials exclusion does not apply.</li> <li>- In SMR's 8/26/2015 written response to EPA's information request (Appendix B), Question E.1.(c), SMR listed 29 discarded solvents that were placed in V-18259. The 29 discarded solvents consisted of both spent solvents with hydrocarbons (CH chain) and spent solvents without hydrocarbons. The content of V-18259 is hard piped to Tank 15096 (Tank S-4319 in SMR Permit from BAAQMD, Permit Application # 8407) which is part of the ROP Unit. The waste streams from the Brine De-oiling Unit and other waste streams transferred via vacuum trucks are also fed into Tank 15096 (Tank S-4319 in SMR Permit from BAAQMD, Permit Application #8407) which is located at the ROP Unit. The material from Tank 15096 is then pumped to a 20,000-gallon Baker Box Mix Tank (S-10 Sludge storage tank in Permit Application #6703 from BAAQMD) where a demulsifying agent, hydrogen sulfide scavenger, and pH control chemicals are added.</li> <li>- According to SMR's 8/26/2015 written response and EPA's inspector's interview with Brock Nethery, Project Manager with Clean Harbors who operates the ROP Unit, a three phase centrifuge separates the waste stream (sludge) from the Baker Box Mix Tank into oil, water and solids phases. <ul style="list-style-type: none"> <li>(a) The solids are accumulated in roll-off bins. Each roll-off bin is sampled and analyzed for benzene content and water content. If the TCLP benzene level is &gt;0.5 ppm, the waste is sent to the Clean Harbors (CH) HW disposal facility in Aragonite UT with a RCRA hazardous waste code of D018 (benzene) and a California waste code of 223 (unspecified oil containing waste) on the associated hazardous waste manifest. If the TCLP benzene level is &lt; 0.5 ppm, the waste is sent to the CH facility in Buttonwillow, California with a California waste code of 223. In addition, the first roll-off bin of each month is analyzed for TCLP, STLC and TTLC and volatiles</li> </ul> </li> </ul>	<p><b>Finding 1:</b></p> <p><b>Appendix A – Photograph</b> CIMG2487 (ROP unit, tank 15096 in the background)</p> <p>CIMG2529 (vessel 18259) CIMG 2527 (lab hood)</p> <p>CIMG2530 (sink connecting to the vessel)</p> <p><b>Appendix B – Shell Martinez Refinery Response to EPA's Information Request</b></p> <p><b>Appendix D - SMR note to file on recovered oil unit (April 9, 2015)</b></p>
----	---	---	---

		<p>(EPA Method 8260), semi-volatiles (EPA Method 8270) and metals (EPA Method 6010).</p> <p>(b) The water portion of the materials after phase separation goes into the wastewater treatment plant for treatment.</p> <p>(c) The recovered oil portion is sent to the crude mix tank before being fed into the crude unit.</p> <p>(d) The ROP unit also has a thermal oxidizer (incinerator) unit that performs treatment of VOCs with an average destruction rate of &gt;95%. The ROP unit is also equipped with a scrubber to remove sulfur dioxide generated from the operation.</p> <ul style="list-style-type: none"> <li>- In SMR's 8/26/2015 written response to Question E.1(a), SMR asserted that the laboratory waste vessel V-18259 is part of a system used for the recovery of oil from oil bearing materials, and is exempt from RCRA regulations under the California Health &amp; Safety Code (HSC) §25144(c).</li> <li>- Under HSC 25144(c)(3), to be excluded from regulation, "oil bearing materials" must meet certain aspects of California's exclusion for "recyclable materials." Given the minimal hydrocarbon content of some lab wastes, and the lack of any hydrocarbon content in other lab wastes, SMR is not legitimately recycling oil from those wastes and the oil-bearing materials exclusion does not apply.</li> <li>- The discarded solvents, as presented in SMR's 8/26/2015 written response, are RCRA regulated wastes with the following waste codes: F005 (spent toluene), F003 (spent acetone, spent xylene), D011 (spent silver nitrate) and D022 (spent chloroform).</li> <li>- Because non-excluded hazardous waste from the lab are placed in Vessel 18259 and hard-piped to Tank 15096, under the mixture rule, the contents of both Vessel 18259 and Tank 15096 are hazardous wastes. (Refer to notes in Count 1.) The hazardous waste content of V-18259 is mixed with other materials in Tank 15096 which is fed into the ROP centrifuge system. SMR is storing and treating RCRA regulated hazardous wastes in V-18259 and the ROP system without a permit.</li> </ul> <p><b>Finding 2:</b></p> <ul style="list-style-type: none"> <li>- <b>SMR is storing hazardous wastes in 19 containers, referred to as "R2D2s" or "gas buggies," at various locations in the refinery production area without a permit.</b></li> </ul>	<p><b>Finding 2:</b></p> <p><b>Appendix A – Photographs CIMG2545 (hood in the</b></p>
--	--	--	---

	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- On 3/26/2015, EPA inspectors inspected the Crack Product Field Lab. According to EPA's interview with Chris Robbins, operations manager of the SMR Coker Unit, spent solvents (e.g. acetone and chloroform), other lab wastes (e.g. silver nitrate) and hydrocarbon wastes are collected in a container in the laboratory hood (CIMG2545). These wastes are then-accumulated in the R2D2 gas buggy labeled "Excluded Recyclable Materials" (CIMG2546). Other discarded materials from the testing performed on the process block are accumulated in the R2D2. The content of the R2D2 is then fed to the ROP Unit.</li> <li>- In SMR's 8/26/2015 response to EPA (Appendix B), Question G.1, the facility asserted "oil bearing hazardous secondary materials" exclusion under 40 CFR § 261.4(a)(12)(i) for the spent solvent in R2D2.</li> <li>- EPA enforces the California authorized program. Under HSC 25144(c)(3), to be excluded from regulation, "oil bearing materials" must meet certain aspects of California's exclusion for "recyclable materials." Given the minimal hydrocarbon content of some wastes collected in the R2D2 containers, and the lack of any hydrocarbon content in others, SMR is not legitimately recycling oil from those wastes and the oil-bearing hazardous secondary materials exclusion does not apply.</li> <li>- The spent solvent wastes in the R2D2 containers include F003 (spent acetone), D022 (spent chloroform) and D011 (spent silver nitrate). The containers were storing hazardous wastes without a permit.</li> <li>- Each of the containers has a capacity of 15 gallons.</li> </ul> <p><b>Finding 3:</b></p> <ul style="list-style-type: none"> <li>- SMR is storing and treating hazardous waste heat exchanger bundle cleaning sludge (K050), API separator sludge (K051), petroleum refinery primary separation sludge (F037) and petroleum refinery secondary separation sludge (F038) on the heat exchanger bundle cleaning pad in the below-grade sump without a permit.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- The facility handles heat exchanger bundle cleaning sludge, a listed</li> </ul>	<p>crack product lab), CIMG2546 ("R2D2" gas buggy on process block)</p> <p><b>Appendix B – Shell Martinez Refinery Response to EPA's Information Request</b></p> <p><b>Finding 3:</b></p> <p><b>Appendix A– Photographs</b>  CIMG2493  IMG_1201[1]  IMG_1203[1]  (heat exchanger bundle cleaning pad)</p> <p><b>Appendix B –</b></p>
--	--	--

		<p>waste (K050), and other listed wastes (F037/F038) on the heat exchanger bundle cleaning pad. The oil-bearing materials exclusion does not apply to wastes on the pad because the wastes are land-placed.</p> <ul style="list-style-type: none"> <li>- The liquid portion of these wastes drain from the pad to sumps and are transferred to the Liquid Handling Site for primary oil/water/solids phase separation. <ul style="list-style-type: none"> <li>(a) The water portion goes into the refinery wastewater treatment system that is covered under a NPDES permit.</li> <li>(b) The solids portion is disposed of as hazardous wastes if the TCLP benzene level exceeds 0.5 ppm. When the TCLP benzene level doesn't exceed 0.5ppm, the materials are sent off as non RCRA hazardous waste.</li> <li>(c) The oil portion is injected into the Coker during the quench cycle.</li> </ul> </li> <li>- At EPA's request, the Contra Costa County Health Department inspected the facility on 12/18/2015 and took pictures of the heat exchanger bundle cleaning pad (IMG_1201[1] and IMG_1203[1]). The photos showed accumulation of liquid and solids on the pad.</li> <li>- Vacuum Truck Operation Checklist (Appendix F) dated 10/16/2014 documented an estimated quantity of 2,500-gallon heat exchanger bundle sludge was directed to the bundle cleaning pad.</li> <li>- SMR reported approximately 37,233 tons of waste (wastewater and non-wastewater) was managed during the heat exchanger bundle cleaning operations on the heat exchanger bundle cleaning pad in 2014.</li> </ul> <p><b>Finding 4:</b></p> <ul style="list-style-type: none"> <li>- SMR is performing treatment (evaporation) of the hazardous wastes at the sandblast area/paint shop without a permit.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- Numerous containers of solvent (D001 and/or D035) and aqueous-based paint waste were left open to dry (CIMG2515, CIMG2516). The secondary containment at the shed at the paint shop was almost full of liquid (CIMG2518).</li> <li>- EPA inspectors determined the contents of these containers are hazardous wastes (see Count 1).</li> <li>- Evaporating the VOCs component of the hazardous wastes is considered treatment under RCRA because it is a method that changes the physical and chemical composition of the hazardous wastes.</li> </ul>	<p><b>Shell Martinez Refinery Response to EPA's Information Request</b></p> <p><b>Appendix E—Annual Benzene Waste Operations NESHAP report data excerpts</b></p> <p><b>Appendix F – Vacuum Truck Operation Checklist</b></p> <p><b>Finding 4:</b></p> <p><b>Appendix A—Photographs CIMG2515 CIMG2516</b></p> <p><b>Appendix B – Shell Martinez Refinery Response to EPA's Information Request</b></p> <p><b>Appendix C – MultiRAE Data</b></p>
--	--	---	--

		<ul style="list-style-type: none"> <li>- The MultiRAE portable gas monitor carried by the DTSC inspector also showed evaporation because it detected a total VOCs of 12 ppm in ambient air at the paint shop area, near the open paint cans.</li> </ul>	
3.	<p>22 CCR § 66265.31, as referenced by § 66262.34(a)(4) Maintenance and Operation of Facility [40 CFR § 265.31, as referenced by § 262.34(a)(4)] – <i>Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.</i></p>	<p><b>Finding 1:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to minimize the possibility of a release of hazardous waste carbon monoxide boiler (COB) fly ash, a listed waste (K048 and D010), at the bag house area near the COBs.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- EPA inspectors observed a thin layer of fly ash (K048 and D010) on the wooden structure beneath the baghouse that was un-containerized.</li> <li>- The fly ash waste was generated by the permitted RCRA COB unit which processed K048 and D010 RCRA wastes (CIMG2491).</li> </ul> <p><b>Finding 2:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to minimize the possibility of a release of benzene, a characteristic hazardous waste (D018) at various locations.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- SMR's total annual benzene (TAB) reports documented benzene release at a concentration of 9.9 ppm from the process wastewater tank T-13188 in 2014. The level exceeded the toxicity characteristic limit for benzene (0.5ppm) using toxicity characteristic leaching procedure (TCLP).</li> <li>- SMR's 2012 TAB report documented benzene releases at 11,000 ppm and 250 ppm due to drips/leaks from vacuum trucks at the ROP Unit. These levels exceeded the TCLP level for benzene.</li> </ul>	<p><b>Finding 1:</b></p> <p><b>Appendix A – Photograph CIMG2491.</b></p> <p><b>Finding 2:</b></p> <p><b>Appendix E– Annual Benzene Waste Operations NESHAP report data excerpts (2012, 2014)</b></p>
4.	<p>22 CCR §§ 66262.34(a)(1)(A); 66265.191; 66265.195 [40 CFR §§ 262.34(a)(1)(ii), 66265.191, 66265.195] <i>Hazardous waste management facilities must comply with unit-specific regulations for hazardous</i></p>	<p><b>Finding:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to manage laboratory waste in V-18259 and Tank 15096 at the ROP Unit in accordance with RCRA Part 265 Subpart J tank requirements.</li> </ul>	<p><b>Appendix A– Photographs CIMG 2529 (vessel 18259) CIMG2487 (ROP Unit)</b></p>

	waste tank in Subpart J (tank integrity assessment, general operating requirements, and inspection requirement)	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- EPA determined the V-18259 and Tank 15096 were holding non-exempt hazardous wastes (see Count 2). Therefore these two tanks must meet the applicable requirements for a hazardous waste storage tank.</li> <li>- Specifically, EPA notes the facility lacks the tank system integrity assessment for the existing tank system required under § 66265.191 and the inspection records required under § 66265.195.</li> </ul>	<b>Appendix B – Shell Martinez Refinery Response to EPA’s Information Request</b>
5.	22 CCR § 66262.34(e)(3) [40 CFR § 262.34(c)(2)] <i>A generator who has accumulated [as much as 55 gallons of hazardous waste] at or near any point of generation shall, with respect to this waste, comply within three days with subsection (a) of this section and other applicable provisions of this division.</i>	<p><b>Finding:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to transport a full satellite accumulation container within three days of being filled to the facility’s less than 90-day accumulation area.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- On March 26, 2015, EPA observed a total of two 55-gallon containers of paint solvent waste that were designated for transfer to the Liquid Waste Handling site, a 90-day accumulation area. One of the two containers is a full container of paint solvent waste (D001) (far right of CIMG 2512) that had been stored at the paint shop since March 11, 2015 and exceeded the 3 days pre-transport accumulation time requirement.</li> <li>- 25 super sacks (one cubic yard each) of fly ash (K048 and D010) were observed near the point of generation. Each super sack holds the equivalent of approximately 202 gallons and thus exceeds the 55 gallon of hazardous waste accumulation limit at or near point of generation (CIMG 2492).</li> </ul>	<b>Appendix A– Photographs</b> CIMG 2512 (Paint Shop) CIMG 2492 (fly ash super sacks)
6.	22 CCR §§66262.34(a)(1)(A); 66262.34(a)(2); 66262.34(a)(3); 66265.173(a) [40 CFR §§ 262.34(a)(2); 262.34(a)(3); 265.173(a)]  <i>Hazardous waste container accumulation time; marking; container management.</i>	<p><b>Finding:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to comply with the required container management standards for hazardous waste generators.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- Containers containing spent solvent (F003, F005) under the laboratory hood in the QA laboratory were open (CIMG2528).</li> <li>- Paint containers at the Sand Blast area (D001, D035) were open (CIMG 2516 &amp; CIMG 2517).</li> </ul>	<b>Appendix A – Photographs</b> CIMG 2516 CIMG 2517 CIMG 2528

		<ul style="list-style-type: none"> <li>- Hazardous waste labels were missing on hazardous wastes containers #6A, #11, #15, #19, #20, #22 in the fume hood and V-18259 in the QA laboratory (CIMG 2528).</li> </ul>	
7.	<p><b>22 CCR §§ 66262.34(a)(1)(A); 66265.1063(d) [40 CFR § 265.1063(d)]</b></p> <p><i>Subpart BB – Air Emission Standards for Equipment Leaks Test Methods and Procedures</i></p>	<p><b>Finding:</b></p> <ul style="list-style-type: none"> <li>- SMR has failed to determine, for each piece of equipment (e.g., valves, flanges), whether the equipment contains or contacts a hazardous waste with organic concentrations of at least 10% by weight.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- SMR failed to determine whether V-18259 contains or contacts hazardous wastes with organic concentrations of at least 10% by weight and is therefore required to comply with Subpart BB air emission standards.</li> </ul>	<p><b>Appendix A</b> <b>Photographs –</b> <b>CIMG 2529</b> <b>(vessel 18259)</b></p> <p><b>Appendix B –</b> <b>Shell Martinez</b> <b>Refinery</b> <b>Response to</b> <b>EPA's</b> <b>Information</b> <b>Request</b></p>
8.	<p><b>22 CCR § 66270.30(a) [40CFR §270.30(a)]</b></p> <p><i>Duty to comply. The permittee shall comply with all conditions of this permit... Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate statute or regulation and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.</i></p> <p><i>Hazardous Waste Facility Permit, Permit Number: 07-BRK-12, Part V. Special Conditions, 5a. The Permittee shall not accept, store, treat or otherwise manage hazardous waste in the ETP-1 Biotreater.</i></p>	<p><b>Finding:</b></p> <ul style="list-style-type: none"> <li>- SMR managed hazardous wastes in the ETP-1 biotreater, an unlined surface impoundment.</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- On August 21, 2003, DTSC approved delayed closure of the biotreater, ETP-1 (Pond 7), an unlined RCRA surface impoundment, without requiring clean out of the content in the unit or retrofitting of the unit. The permit specified that the "Permittee shall not accept, store, treat or otherwise manage hazardous waste in the ETP-1 Biotreater."</li> <li>- One of the conditions of the DTSC's approval is to conduct groundwater monitoring of ETP-1 (Pond 7) under the California Regional Water Quality Control Board San Francisco Bay Region, Site Cleanup Order.</li> <li>- Well 228 is associated with the monitoring of the RCRA unit, biotreater ETP-1, according to California Regional Water Quality Control Board San Francisco Bay Region Order R2-2014-0025, Table 1.</li> <li>- SMR groundwater monitoring data consistently showed benzene present at hazardous waste level (&gt;0.5ppm for toxicity characteristic) in monitoring well 228 from 2006 to 2015.</li> </ul>	<p><b>Appendix H–</b> <b>Groundwater</b> <b>Monitoring</b> <b>Data</b></p> <p><b>Appendix I –</b> <b>ETP-1 Biotreater</b> <b>Delayed Closure</b> <b>Decision</b> <b>Documents and</b> <b>2005 annual non</b> <b>compliance report</b></p>

		<ul style="list-style-type: none"> <li>- Because the ETP-1 was receiving wastewater exceeding toxicity characteristic for benzene (D018), and the sediment/sludge accumulated in the pond was not cleaned out per requirements in the Hazardous and Solid Waste Amendments (HSWA) of 1984, the unit is still managing hazardous waste.</li> </ul>	
	<b>AREAS OF CONCERN</b>		
	<p><b>22 CCR §66265.32(c) [40 CFR § 265.32(c)]</b> <i>All facilities shall be equipped with the following... portable fire extinguishers, fire control equipment....spill control equipment...</i></p>	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- EPA noted there was no spill control equipment in the 90-day drum storage area (CIMG2391).</li> <li>- EPA noted there was no fire control equipment, fire extinguisher or spill control equipment at the 90-day bin laydown yard (CIMG 2387).</li> <li>- When EPA asked the facility about this requirement during the inspection, the facility did not provide an answer to substantiate this requirement was met.</li> </ul>	<p><b>Appendix A – Photographs</b> CIMG 2391 CIMG 2387</p>
	<b>Vacuum Truck Logs</b>	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>- EPA reviewed a subset of the facility's vacuum truck logs. Important information was missing on several logs including the destination of the materials (e.g. "Discharge" or "Directed to" section were not filled out). One log was missing information on the material being transported and the associated disposition (dated 12/30/2014).</li> </ul>	<p><b>Appendix F– Vacuum Truck Operation Checklist dated:</b></p> <p>7/11/2014; 8/13/2014; 12/10/2014; 12/11/2014; 12/23/2014; 12/30/2014</p>